

REMARKS/ARGUMENTS

Favorable reconsideration of this application in view of the above amendments and in light of the following discussion is respectfully requested.

Claims 1, 4-6, 11, 12, and 25-33 are pending. Claims 1, 4-6, 11, and 12 are amended; Claims 7-8 and 13-24 are canceled without prejudice or disclaimer; and Claims 25-33 are newly submitted. No new matter is introduced.

The outstanding Office Action objected to the specification. In addition, Claims 1, 4-6, 11, and 12 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite; Claims 1, 4-6, 11, and 12 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement; Claims 1, 4-6, 11, and 12 rejected under 35 U.S.C. § 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as obvious over Letemps (U.S. Patent No. 5,226,942); and Claim 12 was rejected under 35 U.S.C. § 103(a) as unpatentable over Letemps.

In response to the restriction requirement being made final, Claims 7, 8, and 13-24, directed to non-elected inventions, are canceled. Applicants reserve the right to present claims directed to the non-elected inventions in a divisional application, which shall be subject to the third sentence of 35 U.S.C. § 121.¹

The Office Action objected to the arrangement of the specification. In response, the specification is amended to include the appropriate headers. In view of the amended specification, it is respectfully requested that the objection to the specification be withdrawn.

Applicants acknowledge with appreciation the courtesy of Examiner Hoffmann to interview this case with Applicants' representatives on August 30, 2007, during which time the issues in the outstanding Office Action were discussed as substantially summarized hereinafter and also on the Interview Summary. As noted on the Interview Summary,

¹ "A patent issuing on an application with respect to which a requirement for restriction under this section has been made...shall not be used as a reference...against a divisional application. See also MPEP § 804.01.

clarifying language was discussed for the claims during the personal interview. Examiner Hoffmann indicated that except for “individually”, it appeared that corrections for all of the 112 rejections were found.

Following from the discussion during the personal interview, the rejections under 35 U.S.C. § 112, second paragraph and 35 U.S.C. § 112, first paragraph are addressed as follows. Beginning with Claim 1, the outstanding Office Action states that the claims should positively recite the steps used to determine the referencing of the posture.² In response, amended Claim 1 positively recites determining a first posture of the glass plate being conveyed by the roller conveyor, and comparing the first posture to a previously stored reference posture.

With respect to Claim 4, the Office Action asserts that there is confusing antecedent basis based on whether the glass plate is currently being conveyed or was previously conveyed. Amended Claim 4 recites using an imaging means to capture an image of the glass plate *being* conveyed by the roller conveyor. In addition, Claim 4 is amended to be consistent with the changes in amended Claim 1.

The Office Action rejected Claim 5 for lacking antecedent basis for “plural rollers” and the use of the phrase “in conjunction of”. Amended Claim 5 recites independently moving *at least two of the plurality of rollers* in sequence one after another *in conjunction with* the conveyance of the glass plate.

With respect to Claim 6, the Office Action asserts that there is confusing antecedent basis for the rollers and moving, asserting that “Examiner is confused because Claim 1 requires the movement to be done ‘individually’ whereas Claim 6 requires simultaneous movement. These two things are substantially mutually exclusive.”³ As discussed below with respect to the rejection under 35 U.S.C. § 112, first paragraph, Applicants respectfully

² See the outstanding Office Action at page 3, line 31 to page 4, line 4.

³ See the outstanding Office Action at page 4, lines 14-17.

disagree that moving at least one of the plurality of rollers individually is mutually exclusive with simultaneously moving plural rollers. Nevertheless, in order to advance prosecution, Claim 6 is rewritten in independent form and recites simultaneously moving at least two of the plurality of rollers.

The Office Action also rejected Claim 12, asserting that there is confusing antecedent basis for the rollers. Amended Claim 12 recites that the bending of the positioned glass plate is performed by making use of vertical movement of *at least one bending roller*.

In view of the foregoing amendments, it is submitted that all the claims are definite and clear. Accordingly, it is respectfully requested that the rejection of Claims 1, 4-6, and 11-12 under 35 U.S.C. § 112, second paragraph be withdrawn.

With respect to the rejection under 35 U.S.C. § 112, first paragraph, the Office Action asserts that “Examiner could find no support for the newly claimed limitation that at least one of the plurality of rollers is moved individually...there is simply no support for this (i.e., individual) movement in combination with the independent movement. The same applies to Claim 6: there doesn’t seem to be any support for the individual movement along with the ‘further’ simultaneous movement.”⁴ Applicants respectfully disagree. The Office Action’s interpretation of the claims and Applicants’ disclosure confuses the method implemented to move an individual roller with the relative timing of the motion of multiple rollers.

As discussed during the personal interview, Applicants’ specification as originally filed describes moving at least one of the plurality of rollers *individually* at least at page 13, lines 2-24, with reference to Figures 2 and 3, for example. Specifically, Applicants’ specification as originally filed describes that the axial displacement of *respective* positioning rollers 24a to 24e are controlled under the actions of *respective* servo motors 54. In this configuration, each of the positioning rollers 24a to 24e can be *moved individually*.

⁴ See the outstanding Office Action at page 5, lines 10-19.

Applicants specification further describes *the relative timing of the motion* of the respective positioning rollers 24a-24e. For example, Applicants' originally filed specification describes that, for example, "[a]lthough the respective positioning rollers 24a to 24e are independently moved one after another in conjunction with the conveyance of the glass plate 18 in the examples shown in Figs. 6a to 6f, plural rollers among the positioning rollers 24a to 24e may be simultaneously moved to change a posture of the glass plate 18 as shown in Figs. 7a to 7d."⁵ Thus, even though the positioning rollers 24 to 24e are *moved individually*, the *timing of the motion* of the positioning rollers 24a to 24e can be independent, such that they are moved one after another, or simultaneous, such that they are moved at the same time.

Thus, it is submitted that there is support for moving at least one of the plurality of rollers *individually* in combination with either independent motion or simultaneous motion. Nevertheless, in order to advance prosecution, "individually" is deleted from amended Claim 1. Claim 1 is further amended to clarify that moving at least one of the plurality of rollers includes moving each of the at least one of the plurality of rollers independently with respect to each other roller of the plurality of rollers.

In addition, amended Claim 5 recites that moving at least one of the plurality of rollers includes independently moving at least two of the plurality of rollers in sequence one after another in conjunction with the conveyance of the glass plate. It is submitted that these features find support in the disclosure as originally filed as discussed above. Accordingly, it is respectfully requested that the rejection of Claims 1, 4-6, 11, and 12 under 35 U.S.C. § 112, first paragraph be withdrawn.

It is respectfully requested that the rejection of Claims 1, 4-6, 11, and 12 as anticipated by, or in the alternative, as obvious over Letemps be withdrawn.

⁵ See the Applicants' originally filed specification at page 22, lines 9-15.

Claim 1 recites conveying a glass plate via a roller conveyor including a plurality of rollers, each roller having a rolling axis. Amended Claim 1 further recites moving at least one of the plurality of rollers in a direction *substantially parallel to the rolling axis when the at least one of the plurality of rollers is in contact with the glass plate in conveyance*.

Amended Claim 1 further recites that the moving the at least one of the plurality of rollers includes moving each of the at least one of the plurality of rollers *independently with respect to each other roller of the plurality of rollers*.

Letemps relates to a method of and device for curving glass sheets. Figure 2 of Letemps illustrates that an entire portion 17 of a conveyor is realigned relative to a direction effectively followed by a glass sheet 18 in proximity to an exit from a furnace 19. However, Letemps fails to disclose or suggest moving at least one of a plurality of rollers *independently with respect to each other roller of the plurality of rollers*. The outstanding Office Action argues that “roller 29 is moved in an arc, via mechanisms 35 to 36. See Figure 2 which shows feature 17 being pivoted. When it is moved in an arc, the instantaneous movement of the roller is in a direction substantially parallel to the rolling axis.”⁶ Applicants respectfully disagree that moving the whole portion 17 of the conveyor in Letemps in an arc can reasonably be understood as moving at least one of a plurality of rollers *in a direction substantially parallel to the rolling axis*. Moreover, as can be seen in Figures 2 and 3, *all* of the rollers on the portion 17 of the conveyor are moved together, *as a group*, and are not moved *independently with respect to each other*, as recited in amended independent Claim 1. Therefore, Letemps fails to disclose or suggest the features of amended independent Claim 1.

Amended independent Claim 6 recites simultaneously moving at least two of the plurality of rollers in a direction substantially parallel to the rolling axis when the at least two of the plurality of rollers are in contact with the glass plate in conveyance, to position the

⁶ See the outstanding Office Action at page 7, lines 3-7.

glass plate so as to conform the glass plate to a previously stored reference posture. Letemps fails to disclose or suggest this feature. To the contrary, Letemps describes that “it is no longer the glass sheets which are centered relative to curving machine, but it is this curving machine which is repositioned appropriately for each glass sheet.”⁷ Thus, as can be seen in Figures 2 and 3 of Letemps, the entire curving machine 17 is repositioned appropriately for a glass sheet 18 *prior to* the arrival of the glass sheet 18, and none of the rollers described in Letemps move in a direction substantially parallel to their rolling axis when they are *in contact with a glass sheet in conveyance*.

The outstanding Office Action further argues that it would be obvious to perform the claimed motion with the portion 17 of Letemps when the rollers of the portion 17 of Letemps are in contact with the glass sheet 18 in order to perform a recentering feature.⁸ However, the Office Action’s arguments are purely speculative as Letemps fails to describe or suggest exactly how, or even if, the portion 17 is recentered between receiving subsequent glass sheets. Regardless of how any such undisclosed recentering may occur, such a recentering would not be performed to position the glass sheet 18 so as to conform a glass sheet 18 to the claimed previously stored reference posture. To the contrary, Letemps describes that there is no reason to reorient the glass sheet 18 once it is in contact with the portion 17, stating that “there is no reason to reorient secondary cooling conveyor 20, which in any case receives only glass sheets already toughened, the temperature of which therefore excludes any possibility of further deformation.”⁹ Accordingly, Letemps fails to disclose or suggest the features of amended independent Claim 6.

Accordingly, as Letemps fails to disclose or suggest the features of amended independent Claims 1 or 6, it is submitted that amended independent Claims 1 and 6 are in

⁷ See Letemps at col. 3, lines 9-13.

⁸ See the outstanding Office Action at page 8, line 6 to page 10, line 9.

⁹ See Letemps at col. 7, lines 42-47.

condition for allowance, and it is respectfully requested that the rejection of Claims 1, 4-6, 11 and 12 based on Letemps be withdrawn.

Further, with respect to the rejection of Claim 4, the Office Action asserts

The using, recognizing and comparing steps are disclosed at col. 6, lines 38. It is deemed that the "supplying a signal" corresponds to finding an "amount" - whether it be found through look-up in a data base, or found via calculation. The amount is deemed to be an "axial" displacement amount, based on the degree the roller's axis is angularly displaced. Note applicant's page 14, line 11 which indicates "D" is the amount and figures 8-9 which shows this amount "D" is an angular displacement of an axis. The adjective "axial" serves to indicate what is displaced, not a direction."¹⁰

Applicants disagree with this assertion for two reasons: (1) the Office Action misinterprets Letemps and (2) the Office Action misinterprets Applicants' specification.

Letemps describes two embodiments for curving glass sheets. In the first embodiment, Letemps describes a pivoting device 11, which receives a control signal from a computing unit 10 with the result that an upper curving mold 4 rotates so as to be situated exactly vertically above a glass sheet, whatever the angular shift of the latter.¹¹ In a second embodiment, Letemps describes moving all of the rollers on the portion 17 of a conveyor as a group.¹² As discussed above, the Office Action bases its rejection of the independent claims on the second embodiment. However, with respect to Claim 4, the Office Action now relies on a portion the first embodiment of Letemps without any regard for the context in which the teachings are applied. Applicants note that "it is impermissible within the framework of section 103 to *pick and choose* from any one reference only so much of it as will support a given position to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one skilled in the art." *In re Wesslau*, 353 F.2d 238, 241, 147 USPQ 391, 393 (CCPA 1965) (emphasis added).

¹⁰ See the outstanding Office Action at page 10, lines 10-17.

¹¹ See Letemps, at column 5, line 40 to column 7, line 32 with reference to Figure 1, in particular, col. 6, lines 62-67.

¹² See Letemps, at col. 7, line 33 to col. 8, line 51, with reference to Figures 2 and 3.

Further, the Office Action misinterprets Applicants' specification. As noted above, the Office Action asserts that "The adjective "axial" serves to indicate what is displaced, not a direction." In making this assertion, the Office Action impermissibly disregards the plain meaning of the phrase "axial displacement" in order to give the phrase special meaning based on *different embodiment* discussed in Applicants' specification. In particular, the Office Action relies on a description on page 14, line 11 of Applicants' specification and asserts that this portion of the specification "indicates "D" is the amount and figures 8-9 which shows this amount "D" is an angular displacement of an axis." However, page 13, line 25 to page 14, line 22 of the specification as originally filed refers to *Figure 4*, not Figures 8 and 9. Instead, the description of Figures 8 and 9 can be found at page 23, line 5 to page 25, line 8, of the specification as originally filed.

Accordingly, Applicants submit that the phrase "axial displacement" should not be limited to the meaning set forth in the Office Action, because the Office Action bases this meaning on an incorrect interpretation of Applicant's specification.

With respect to the rejection of dependent Claim 12 as obvious in view of Letemps, dependent Claim 12 is in condition for allowance for at least the same reasons as amended independent Claim 1, from which it depends. Accordingly, it is respectfully requested that the rejection of dependent Claim 12 as obvious in view of Letemps be withdrawn.

New Claims 25-27 patentably define over the cited art for at least the same reasons as amended Claim 6, from which they depend. Claims 25-27 also recite additional features which are not suggested by the cited references, particularly in combination with the features of amended Claim 6. New Claims 25-27 find support in the claims as previously filed, and therefore do not raise a question of new matter. Accordingly, new Claims 25-27 are believed to be in condition for allowance.

New Claim 28 recites conveying a glass plate by a roller conveyor including a plurality of actuators in a plurality of rollers. New independent Claim 28 finds support in the specification as originally filed at least at page 13, lines 2 to 24, and therefore do not raise a question of new matter. Claim 28 recites moving at least two of the plurality of rollers in a direction substantially parallel to the rolling access when the at least two of the plurality of rollers are in contact with the glass plate in conveyance. Claim 28 further recites that each of the at least two of the plurality of rollers is moved by a different one of the plurality of actuators. As discussed above, Letemps describes a configuration that includes moving an entire group of rollers, but does not disclose or suggest moving each of at least two of a plurality of rollers by a different one of a plurality of actuators. Accordingly, Letemps fails to disclose or suggest the features of independent Claim 28.

New Claims 29-33 patentably define over the cited art for at least the same reasons as new Claim 28, from which they depend. Claims 29-33 also recite additional features which are not suggested by the cited references, particularly in combination with the features of new Claim 28. New Claims 29-33 find support in the claims as previously filed, and therefore do not raise a question of new matter. Accordingly, new Claims 29-33 are believed to be in condition for allowance.

For the reasons discussed above, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal allowance. Therefore, a Notice of Allowance for Claims 1, 4-6, 11, 12, and 25-33 is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact Applicants' undersigned representative at the below-listed telephone number.

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